

Patent claims

1. A roller band cassette for use in a control device
(1) for controlling air flows in motor vehicles,
5 comprising a roller-band subassembly with a roller-type
louver, which is formed by a roller band (5), and at
least two shafts (6; 7), one shaft being a drive shaft
(6) and one shaft being a return shaft (7),
characterized in that the roller band (5) is formed by
10 an endless band or is designed in the manner of an
endless band.
2. The roller band cassette as claimed in claim 1,
characterized in that the roller band (5) bears only
15 against subregion of the outer circumference of the
drive shaft (6) and of the return shaft (7).
3. The roller band cassette as claimed in claim 2,
characterized in that at least one shaft (6; 7) is of
20 two-part design.
4. The roller band cassette as claimed in one of the
preceding claims, characterized in that the drive shaft
(6) is of two-part design.
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5. The roller band cassette as claimed in one of the
preceding claims, characterized in that the roller band
(5) is attached fixedly to the drive shaft (6).
- 30 6. The roller band cassette as claimed in one of the
preceding claims, characterized in that both ends of
the endless-band-like roller band (5) or a folded-up
region of the endless roller band (5) is/are fixed on
the drive shaft (6).
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7. The roller band cassette as claimed in claim 6,
characterized in that the drive shaft (6) comprises at

least two parts (6.1 and 6.2), the roller band (5) being clamped or welded between these two parts (6.1 and 6.2).

5 8. The roller band cassette as claimed in claim 7, characterized in that the two parts (6.1 and 6.2) are connected to each other by means of clipping or locking.

10 9. The roller band cassette as claimed in claim 7 or 8, characterized in that the two parts (6.1 and 6.2) of the drive shaft (6) are connected flexibly to each other in the open state via at least one connecting web (6.4).

15 10. The roller band cassette as claimed in one of claims 7 to 9, characterized in that the two parts (6.1 and 6.2) of the drive shaft (6) are manufactured integrally.

20 11. The roller band cassette as claimed in one of claims 7 to 10, characterized in that at least one of the two parts (6.1 and 6.2) of the drive shaft (6) has projections (6.5) which serve as fixing pins and engage
25 in holes (5.5) provided in the roller band (5).

12. The roller band cassette as claimed in one of the preceding claims, characterized in that the roller band (5) is of multilayer design at least in some regions.

30 13. The roller band cassette as claimed in claim 12, characterized in that the roller band (5) has a metal layer, in particular of aluminum.

35 14. The roller band cassette as claimed in one of the preceding claims, characterized in that the roller band

(5) is designed with openings or cutouts (5.1) for opening up the passage cross section (4).

15. The roller band cassette as claimed in one of the preceding claims, characterized in that the roller band (5) is guided in two layers past the at least one passage opening (4), openings or cutouts (5.1) being distributed on the roller band (5) in such a manner that, when a passage opening (4) is closed, each layer (5.3, 5.4) of the roller band (5) covers approximately half of the passage opening (4), the passage opening (4) being opened by the two layers (5.3, 5.4) of the roller band (5) moving in opposite directions and opening up the passage opening (4) from the center outward.

16. The roller band cassette as claimed in one of the preceding claims, characterized in that because of the arrangement of lattice bars (4.1) the roller band cassette can be acted upon on both sides with air.

17. The roller band cassette as claimed in one of the preceding claims, characterized in that edges (5.6) of openings or cutouts (5.1) of the roller band (5) are beveled.

18. The roller band cassette as claimed in one of the preceding claims, characterized in that a servomotor is integrated into the drive shaft (6), which is designed as a hollow shaft.

19. The roller band cassette as claimed in one of the preceding claims, characterized in that the return shaft (7) and/or the drive shaft (6) is/are convex in order to avoid the roller band (5) creasing.

20. A heating or air conditioning system having a roller band cassette as claimed in one of the preceding claims 1 to 17.